

CLAIMS

What Is Claimed Is:

1. Raw powder for sintering, comprising Fe as its primary component and also comprising 0.8 wt% or less of C, 0.05 to 1.0 wt% of Si, 1.0 wt% or less of Mn, and 1.0 to 10.0 wt% or less of Ni, wherein
the mean grain size of the raw powder for sintering is 8.5 μm or less.
2. The raw powder for sintering according to claim 1, further containing at least one element selected from among 2.0 wt% or less of Cr, 3.0 wt% or less of Mo, 3.0 wt% or less of Cu, 0.15 to 1.0 wt% of Nb, and 0.05 wt% or less of Ti.
3. The raw powder for sintering according to claim 1, wherein the raw powder for sintering is manufactured by a prealloy method.
4. Granulated powder for sintering, obtained by granulating the raw powder for sintering according to claim 1 by means of a binder.
5. The granulated powder for sintering according to claim 4, wherein the mean grain size of the granulated powder for sintering is 10 to 150 μm .
6. A sintered compact with a relative density of 97% or greater, manufactured using the raw powder for sintering according to claim 1.
7. A sintered compact with a specific gravity of 97% or greater, manufactured using the granulated powder for sintering according to claim 4.
8. A method for manufacturing a sintered compact, comprising a step in which the raw powder for sintering according to claim 1 is first molded and then sintered under specific temperature conditions.
9. A method for manufacturing a sintered compact, comprising a step in which the granulated powder for sintering according to claim 4 is first molded and then sintered under specific temperature conditions.